(54) Title: A METHOD AND SYSTEM FOR DECODING VARIABLE LENGTH ENCODED SIGNALS, COMPUTER PROGRAM PRODUCT THEREFOR
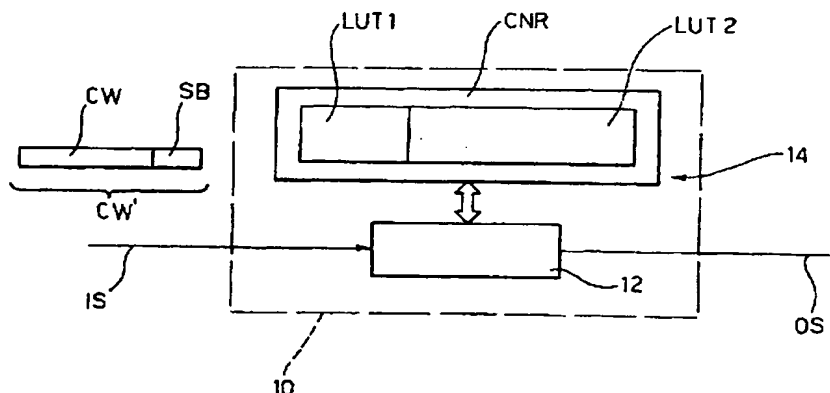
(57) Abstract: The system (10) is adapted for use e.g. in an MPEG audio-video decoder for fro decoding variable-length (e.g. Huffman) encoded codewords (CW) each having associated a respective set of sign bits (SB). The system (10) operates on the basis of a signed decoding codebook including extended signed codewords (CW'). Each extended codeword (CW') includes a respective codeword (CW) in the original codebook plus the associated set of sign bits (SB). The variable-length encoded codewords (CW) are decoded on the basis of the signed decoding codebook, whereby the codewords (CW) are decoded together with the sign bit set (SB) associated therewith. Preferably, the codewords are partitioned in a "short" and "long" codewords with respect to a given threshold. The short codewords are decoded by means of a single lookup step in a first lookup table (LUT1). The long words are decoded by means of a multi-step lookup process involving at least one second lookup table (LUT2). The lookup tables (LUT1), (LUT2) are preferably arranged as nested lookup tables within a container table (CNR)

FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.